

Negative Moment: Political Geology in the Twenty-First Century

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Images by Gauri Gill and Rajesh Chaitya Vangad

Just as none of us is outside or beyond geography, none of us is completely free from the struggle over geography. That struggle is complex and interesting because it is not only about soldiers and cannons but also about ideas, about forms, about images and imaginings.

—Edward Said, Culture and Imperialism (1993)

Peter Sloterdijk famously wrote that modernity began on the northern fronts of World War I, when imperial Germany first deployed poisonous chemicals, which they dug into their trenches, against French troops. It was the first instance where, rather than the body of the enemy, it was the environment that was under attack, with mustard gas creating zones in which the air was no longer breathable.¹ From an ecological perspective, if the “unit of survival is organism plus environment,” then destroying the organism’s environment destroys the organism.²

Such an attack is an index of modernity’s planetary environmental violence, an entangled, asymmetric violence of old and new forces that cuts transversally across temporal and spatial scales. But armed conflict is only one of the various typologies it may take. Desertification, deforestation, poisoning of the atmosphere, the sixth wave of extinction, climate change, acidification of the oceans are all forms of planetary environmental violence, but so are land grabs in Africa perpetuated by neocolonial logics, slash and burn forest fires in Indonesia, the ascription of exchange value to conflict minerals in Latin America and their deep-time histories indifferent to humanity, and the effects of nuclear testing by the United States and France in the Pacific region. Across a variety of forms, planetary environmental violence may extinguish life and matter abruptly or gradually, which requires that we closely attend to its temporality.

The planet is a crime scene where the atmosphere, climate, and oceans are simultaneously alibi, victim, and instrument of a long-standing violence. More-than-human forms of destruction must be seen as environmental violence to undo the assumption that human action is the sole cause. Against a flattening of agency, it compels us to examine the divide between human and extra-human forces. As the geographer Anja Kanngieser puts it, “Anthropomorphisms are virtually impossible to escape, but it might be possible to become sensitive to that which humans have no claim to, or over, and to which humanity is of no concern.”³



Gauri Gill and Rajesh Chaitya Vangad, *Destruction of Forests* (2014), from the series “Fields of Sight,” ink on archival pigment print, 40.6 × 61 cm



Gauri Gill and Rajesh Chaitya Vangad, *Collecting Herbs in the Forest* (2014), from the series “Fields of Sight,” ink on archival pigment print, 40.6 × 61 cm

The cause and effects of environmental violence are ultimately bound up with capitalist modes of production. The ecological crisis is underwritten by asymmetries of class, power, and gender (capitalism cannot produce value without “free” reproductive labor). An increased awareness of environmental violence holds great implications for ecopolitical consciousness and ethics as well as for the formation of an anticapitalist political ecology at once structural, social, psychic, and environmental. The question is, what ammunition can closer attention to more-than-human forces provide for those fighting back against hegemonic power?

In her reflections on violence, Hannah Arendt wrote that the twentieth century, plagued by war and revolution, had violence as its common denominator.⁴ Arendt’s political theory did not claim a unified, continuous history. On the contrary, the monstrous violence and genocides of the last century summoned an overwhelming, contingent historiography. In the twenty-first century, the entanglements of environmental violence extend Arendt’s thesis.

An Anthropic Conceit

Gauri Gill and Rajesh Chaitya Vangad, *Collecting Herbs in the Forest* (2014), from the series “Fields of Sight,” ink on archival pigment print, 40.6 × 61 cm

The Anthropocene thesis claims that humans have become a geophysical force operating on the planet, as if humans were an undifferentiated whole.⁵ But which humans, to be more precise? Among the epistemological fallacies—and dangers—of the concept of the Anthropocene is that it renders the human abstract in the process of geologizing human agency, what Donna Haraway might call an example of the “god trick.”⁶ The Cameroonian philosopher and historian Achille Mbembe describes a “negative moment” as an instant when “new antagonisms emerge while old ones remain unresolved.”⁷ In contemporary times, emergent ecological crisis is a paradigmatic negative moment with regard to the unresolved dark twinning of capitalism and colonialism. Yet in focusing on the environmental consequences rather than the interrelations of capital, power, and nature, the Anthropocene argument misses the political problem: that the origin of the crisis is not humans themselves but the capitalism and production of capitalist subjectivity that shape them.⁸ And as so many counter-hegemonic, alter-globalization movements have voiced, we cannot hold “humanity” responsible; rather we must hold to account the ruling political and economic classes of both the Global North and the Global South.



Gauri Gill, *Ruined Rainbow 5* (1999–), from the series “Notes from the Desert,” archival pigment print, 40.6 × 61 cm

The Indian ecologist Madhav Gadgil and historian Ramachandra Guha place two types of socio-ecological classes in opposition. “Ecosystem people” are those who depend on natural resources in their immediate vicinity, while “omnivores” are those who have the political and economic power to consume resources on national and global scales.⁹ They claim that in the conflict over resources between the two, the dominance of the omnivores has been central, and their control of state incentives, subsidies, and technological interventions has passed on the costs, such as resource depletion, environmental degradation, and species loss, to the ecosystem people. While the main use value of natural resources is subsistence for the ecosystem people, they are exponentially commoditized by and for the omnivores.

Take carbon dioxide emissions as a form of planetary environmental violence. Carbon dioxide emissions are an externalized cost of capitalism that nevertheless remains in the atmosphere. Bangladeshi villagers deep in the Bengal Delta have not contributed to global warming, yet they live in one of the frontiers of sea-level rise. This scenario is precisely what environmentalists Anil Agarwal and Sunita Narain term “environmental colonialism” in their manifesto *Global Warming in an Unequal World*.¹⁰ Carbon trading, in addressing the symptoms and not the causes of climate change, might be the final, desperate act of homo economicus. While we share responsibility for pollution through our patterns of consumption (internalized as capitalist subjectivity), the ultimate responsibility lies with global capitalism, which appropriates nature and continuously expands its frontier from the long sixteenth century to the present.

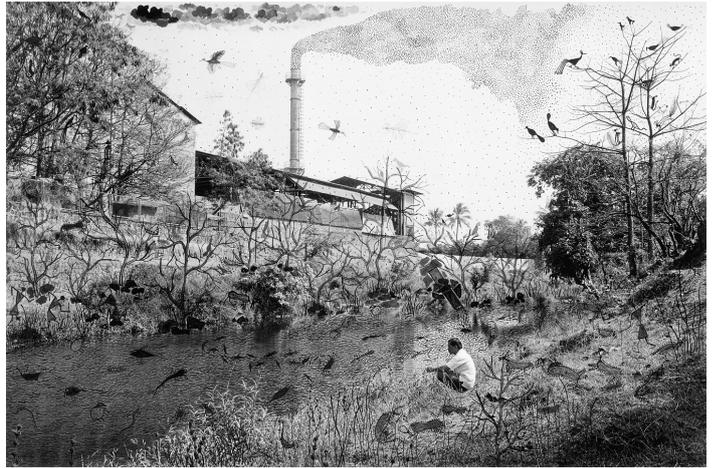
The word justice carries with it associations with both law and right.¹¹ If, following Edward Said, we are engaged in a “struggle over geography,” we seek an ecological justice that makes geographies more just.¹² Increasing justice and decreasing injustice in turn addresses structural inequality and asymmetries of power and knowledge by which dispossession and extinction are ever linked. As Bill McKibben made clear “an idea, a relationship, can go extinct, just like an animal or a plant,” especially when that idea is of nature, pristine and external to human history.¹³ Today the language and gestures of solidarity are at risk of extinction as much as any other living species:¹⁴ solidarity that learns from the histories of anticolonialism and international labor rights and is not motivated by a politics of pity for the dispossessed but rather with those caught along the deadly vectors of environmental violence.

It is an inherent human right for people to have safe drinking water or to stop their ancestral forests and lands from being destroyed by the greed of transnational companies. But because the physical properties of environmental forces and materials allow their participation in this expanded definition of violence, they become alibis and witnesses in disputes that exceed the spaces of sovereign territorial states. In Victorian England, criminals operated under cover of the soup of industrial smog and fog. Today, in the tropics, the cloudiest regions of the planet, mining corporations pollute under heavy cloud cover, using the earth’s climate as alibi. Yet crediting environmental forces with agency places more urgency on human responsibility, not less. Coming to terms with environmental violence requires reframing the language of claims and rights, as the victims are oceans, rivers, and forests, the dead, and the poor with limited access to justice. Indeed, when notions of victim, perpetrator, and crime shift within such a murky field, new, militant research practices in architecture, city planning, politics, and aesthetics are called for to hold accountable those who profit from such violence and those whom we trust to provide us with societal protection. With diffused violence, evidence gathering can itself be diffused, requiring a new form of forensic practice as well.¹⁵ Such practices help foreground a violence that is registered on multiple dimensions and territories, transversal, seen and unseen, heard and unheard.

Existing international laws are inadequate to address transborder environmental crimes where actors are also extra-human. The laws of war, the Geneva Conventions, and the Responsibility to Protect (R2P) doctrine exclude environmental destruction from crimes against humanity. We must invent new forums that provide protocols for political action from within and outside global law to coproduce, with many voices, legal mechanisms that stop destruction of the planet—ecocide law. This is the work of a political geology with and through the earth. The methods and actions we invent must support the dispossessed and more-than-human of the earth in resistance across resource, ecological, planetary, deep oceanic, and mineral frontiers. Such turbulence pushes legal boundaries forward. But the forums lie beyond the law, in social movements, classrooms, and cultural production.

Environmental Colonialism

Environmental violence can only be understood via the field of environmental history, which, broadly, gives a dialectic accounting of humanity-in-nature and nature-in-humanity.¹⁶ It incorporates a history of the externalization of nature, from the mineral to the vegetal, silver to sugar, that allowed for the fetishization and commodification of the environment in ways foreign to the peoples that colonialism encountered and whose forms of knowledge it would obliterate. On the other side of the dialectical feedback loop, it considers nature to have agency in shaping human history, just as human action effects natural phenomena. Seeking a synthesis against the abstraction of nature, environmental historians have offered an ecological perspective, one that asserts the material presence of nature in geosocial formations. Human societies unfold and enfold in nature.



Gauri Gill, Ruined Rainbow 5 (1999–), from the series “Notes from the Desert,” archival pigment print, 40.6 × 61 cm

My work in this essay draws inspiration in particular from those environmental histories that claim that uneven development and ecological decline in the Global South are the collateral results of a violence that tried to master nature.¹⁷ Territorial transformations, such as forest enclosures that turned commons into colonial (and later state) property, were intentional, violent means of subjugation. By placing narratives of nature in relation to necropower at the center of their discourse, environmental historians have been able to stake out an epistemology different from that of sociopolitical postcolonial histories. While environmental history draws inspiration from historiographic methodology, for example, adopting the concept of the *longue durée* to help study long-term socio-environmental change, the popular ecology movements of the late 1960s and 1970s have also been important to its development. In articulating the origins of the antagonisms between the rich and the poor, landowners and the landless, the nation-state and Indigenous peoples, environmental history problematizes the past from an environmental perspective while placing an ethics at its core.

A brief consideration of the geography of famine is necessary here, for famine is a form of environmental violence that historically unites climate, soil, and economy, empire and capitalism. Many environmental historians have chronicled the crimes of the British Empire.¹⁸ Among them, Mike Davis in *Late Victorian Holocausts* (2000) offers a grimoire of colonial-environmental violence in which climate is weaponized across the planet against entire populations.¹⁹ Davis’s book tells harrowing tales of famine coproduced by El Niño–induced droughts and imperial conceit that took tens of millions of lives around the globe in the late nineteenth century in China, India, and Brazil.²⁰ Beyond “monocausal explanatory models,” which grant either nature or culture sole causality, a dialectic reading of environmental history takes global climate patterns as a force multiplier for colonial exploitation ranging from land grabs to the pilfering of grain and a criminal lack of humanitarian relief during famine.²¹

For instance, during the 1876–78 Great Famine in India, which killed around six million people, the logistical marvel of a vast railroad network in British India, a feat of colonialist infrastructure, stood in stark contrast to the hundreds of thousands of Indians literally starving along railroad tracks whose singular purpose was to transport grain and cash crops away into a world economy.²² Not addressing the hunger caused by grain shortages from widespread crop failures and lack of rain equated to genocide committed against the poor and the dispossessed. Millions died “not outside the ‘modern world system,’ but in the very process of being forcibly incorporated into its economic and political structures,” and by the turn of the century, large populations in other, disparate locations such as China and Brazil were similarly pauperized.²³ Davis’s work is so compelling because, rather than presenting a purely economic account or a humanitarian critique, he twins environmental conditions with political economy.²⁴

Historical accounts of famine cross over with the nascent, closely related interdisciplinary field of political ecology, which addresses environmental inequalities, conflicts, and the resulting environmental injustices.²⁵ It is this intersectional approach, applying political terms to environmental change—particularly environmental decline and its relation to social vulnerability—that defines political ecology as a field where environmental explanations may be made in terms of social justice.²⁶ Félix Guattari truncates the term “political ecology” even further, so that ecology implies the political, as he argues for an ecology that “questions the whole of subjectivity and capitalistic power formations, whose sweeping progress cannot be guaranteed to continue as it has.”²⁷ Concerned with how we can survive on this planet and in considered modes of living, this ecology is both mental and global in scale. As such, it does not seek, however, to universalize ecology as only having to do with the environment, a cause associated with the image of a small, nature-loving minority. Ecology as it emerges from its root *oikos*, meaning house, habitat, natural milieu in Greek, merges environmental concerns with human subjectivity and social relations toward a pragmatic liberation, an *ecosophy*.²⁸ Guattari leads the way toward the formation of what I call an “ecopolitical consciousness,” oriented towards an ecologic of self-determination.

Guattari asks us to struggle “transversally” across three ecologies, *psyche*, *socius*, and the environment, and against the discretization of thought and the boredom of “repetitive impasses.” He advocates that we “resingularize” ourselves.²⁹ It is this democratization of thought that can open up new forms of commitment and produce new ways of living together. In transversal thinking, nature cannot be separated from culture. This approach is of course utterly contested by territorial conflicts and geopolitical games. Take, for example, the workings of the global political class, which sees ecological crises through an economic lens and is content to trade emissions instead of imagining the end of capitalism.

One unlikely source of a transversal perspective is the 1896 novel *Underground Man*, the only work of fiction by the French sociologist and criminologist Gabriel de Tarde. In the book, the planet is gripped by a monocultural globalization after a cataclysmic global war. Everyone speaks the same language, a version of Greek. Science and technology have progressed beyond previous measure, so much so that scientists have little else to discover or improve. For some time, however, scientists have warned that the sun was losing its heat—warnings largely ignored by politicians and citizens alike. In an eschatological turn, the dire predictions come true: the sun, source of limitless energy, dims to a lethargic glow, and all life is faced with extinction.

As the surface of the planet becomes quickly cold and unlivable, a band of survivors moves underground and begins a new, telluric life. In a radical reformatting that brings human and natural history toward union, Tarde’s vision is for humans to live in affinity with minerals and rocks. The two sciences that shape this experience represent a coupling of matter and mind—chemistry and psychology:

*Our chemists, inspired perhaps by love and better instructed in the nature of affinities, force their way into the inner life of the molecules and reveal to us their desires, their ideas, and under a fallacious air of conformity, their individual physiognomy. While they thus construct for us the psychology of the atom, our psychologists explain to us the atomic theory of self.*³⁰

Humanity survives only by undergoing radical change, by creating new geosocial formations. Parallels can be drawn between the globalizing present day and Tarde’s era, the end of the nineteenth century, which saw the rise of the physical sciences and the nation-state. Today, neoliberal globalization between the two poles of so-called progress, technoscience and the liberal state, have pushed us to a catastrophe, one that will occur not in a single, colossal eschatological event but as an incremental progression. It is already unfolding on the frontiers of environmental violence and climate change in the Global South. Following Guattari, we cannot conceive solutions to the ecological crisis “without a mutation of mentality, without promoting a new art of living in society.”³¹

Political Geology

Contemporary humanitarianism bases itself on a politics of pity and compassion rather than a politics of rights and justice. The precarious lives of the most vulnerable become the objects of calculation in a contemporary moral accounting. Strategically addressing the symptoms rather than the causes of social inequality only diffuses our responsibility for them. In the humanitarian present, the modulation and matrix of humanitarian action have come to be less about labor power and the earth processes that are transforming our planet into “a threatened object, a depletive reserve,” and more about conflicts over resources and the climate itself.³²



Gauri Gill, Ruined Rainbow 6 (1999–), from the series “Notes from the Desert,” archival pigment print, 40.6 × 61 cm

I am reminded of Michel Serres’s experience of the Loma Prieta earthquake of 1989, along the San Andreas Fault in California. At 6.9 on the Richter scale, it transformed the philosopher’s body into a delirious seismograph. The quake caused sixty-three deaths and substantial material destruction. In comparison, two hundred and fifty thousand people died in Port-au-Prince in an earthquake of similar magnitude in 2010. The different outcomes have less to do with nature than human action. As Serres writes, “Human, collective, political, economic, social conditions—poverty for example—prevail, and by far, over the purely physical cause.”³³ Voltaire and other protagonists of the Enlightenment were mistaken in their verdict that accused God for the “creative act” that permitted the horrors of the 1755 Lisbon earthquake. While a generative earth is the ultimate medium of environmental violence, “only society can be accused.”³⁴

Nigel Clark, drawing on the writings of Emmanuel Levinas, has noted that generosity in response to the distant suffering of strangers opens up an ethical relation to the variability of the effects of the earth’s processes. But this relation is contingent and diffused, failing to make “a direct link between proximity to the violence of physical forces and the cultivation of a generous disposition towards others.”³⁵ Processes of planetary change manifest themselves in forces and intensities, eruptive and ecstatic, wholly indifferent to human plight. To contest, perhaps, the conceitedness of the Anthropocene thesis: it’s not that humans are in any place to offer agency back to earth’s material forces but rather that the earth constitutes an agency unknown, insensible, and imperceptible at the threshold of affects and our “schizo” unconscious.

At the same time, the world of things extends materiality to social and political life; all the ways that world-encompassing relations of power and production have thoroughly transformed, appropriated, and modified nature notwithstanding.³⁶ Against all abstraction, considering the agency of things is to take them seriously where their materiality is no longer additional or symbolic. Namely, invoking the agency of a cyclone in relation to a political revolution is not to fit nature into a unified set of anthropocentric politics but to enlarge the discussion of what constitutes politics, especially as ecological concerns have become issues of public debate.³⁷

My sense of political geology involves two arguments, one new and one old. The old one is that, from a planetary perspective, life, no matter how diverse, is bundled with the forces of the earth. In times of hope and crisis, we are earthbound. Yet the time scale in which some events occur is so long compared to human history, where we experience life and bodies on earth as relatively stable. The new argument, on the other hand, is that to reimagine geopolitics we must no longer think along asymmetries related to a geographical or cultural South but about transversal, planetary processes. By expanding scale, however, I certainly do not mean to offer a totalizing theory. On the contrary, a politics unbound through the contingencies of geological processes must offer confrontation through specific practices and specific people’s struggles.

It is not that environmental problems exceed state borders but that the earth is ontologically constituted of territorialized material flows of labor and capital traced onto the earth.³⁸ As ecosystems slice through sovereign territorial geopolitical states and render the borderline between humans and nature porous, the space of sovereignty can contain the flows of neither nature nor capital. An emancipatory politics of ecology in turn escapes the space of sovereignty.



Gauri Gill and Rajesh Chaitya Vangad, *The Drought, the Flood* (2016), from the series "Fields of Sight," ink on archival pigment print, 106.7 × 157.5 cm

The current ecological crisis could have the effect of expanding both what constitutes an environmental claim, and the concept of rights, from the rights to resources, land, culture, and commons to multispecies rights; a collective biocentric rights in the web of life. We require a legal pluralism that can address the diversity of life forms, cosmologies, and geosocial formations. Politicized through social movements and acts of resistance large and small before becoming a part of law, such legal pluralism could reflect the examples of international solidarity movements and alliances amongst social movements, nongovernmental organizations, trade unions, and Indigenous peoples. The successful movements exploit the internal contradictions of capital (unions such as the International Dockworkers Council, for example, which uses the infrastructure of global shipping to organize its members over long distances into transnational solidarity networks) and mobilize both nation-states and juridical power as "guarantors" of these rights, while at the same time recognizing that law produces the conditions for environmental violence to take place.³⁹ New instances of international law can produce a formal legal recognition of collective rights with nature as a juridical subject and place homo economicus on trial, based on the jurisprudence of regional courts and tribunals such as the African Commission on Human and Peoples' Rights, the Inter-American Court of Human Rights, multilateral environmental agreements, and international laws of war, in which the space of conflict is also law itself, and law's scale is made global to meet the challenges of a planetary environmental violence.⁴⁰

I wish to end with a series of questions. How can we better array knowledge with regard to complex cases of planetary environmental violence? How can we decenter dominant narratives of social-natural interaction and replace them with a world-ecological perspective? How to conceive the commons through a new kind of geopolitics, a politics with the earth? In the twenty-first century, how can we conceive ecologies that extend our biological and geological imagination toward an emancipatory legal pluralism under late capitalism? Such appeals entail a recognition of the dynamic, contingent, and transversal understanding of environmental violence, where conflict cannot be seen as a form of catastrophism but rather as a call to action for justice yet to come.

- 1 Peter Sloterdijk, *Terror from the Air*, trans. Amy Patton and Steve Corcoran (Los Angeles: Semiotext(e), 2009), p. 10.
- 2 Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (Chicago: University of Chicago Press, 2000), p. 491.
- 3 Anja Kanngieser, "Geopolitics and the Anthropocene: Five Propositions for Sound," *GeoHumanities* 1 (2015), p. 3.
- 4 Hannah Arendt, *On Violence* (New York: Harcourt Brace World, 1970).
- 5 See Will Steffen et al., "The Anthropocene: From Global Change to Planetary Stewardship," *Ambio* 40, no. 7 (October 2011), pp. 739–61; "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?," *Ambio* 36, no. 8 (December 2007), pp. 614–21; and Jan Zalasiewicz et al., "The Anthropocene: A New Epoch of Geological Time?," *Philosophical Transactions of the Royal Society A* 369, no. 1938 (March 2011), p. 837.
- 6 Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (Autumn 1988), p. 582.
- 7 Achille Mbembe, "Decolonizing Knowledge and the Question of the Archive," Wits Institute for Social and Economic Research. Online: <http://wiser.wits.ac.za/system/file/Achille%20Mbembe%20-%20Decolonizing%20Knowledge%20and%20the%20Question%20of%20the%20Archive.pdf>.
- 8 There is a call to instead name the epoch the Capitalocene. See Jason Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (New York: Verso, 2015) and *Anthropocene or Capitalocene: Nature, History, and the Crisis of Capitalism?* (Oakland: PM Press, 2016). The concept of the Capitalocene also resonates with Anna Tsing's notion of "salvage accumulation," in which capitalism produces value out of things that it cannot itself produce, whether coal, whales, or human labor. We could, following Bataille, problematize Tsing's argument to perhaps say that all life, and certainly human life, is dependent on the energy of the sun, also always from the outside and given to us as a gift rather than any form of exchange. See Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015) and Georges Bataille, *The Accursed Share: An Essay on General Economy*, vol. 1, *Consumption*, trans. Robert Hurley (New York: Zone Books, 1991).
- 9 Madhav Gadgil and Ramachandra Guha, *This Fissured Land: An Ecological History of India* (Berkeley: University of California Press, 1993).
- 10 Anil Agarwal and Sunita Narain, *Global Warming in an Unequal World: A Case of Environmental Colonialism* (New Delhi: Centre for Science and Environment, 1991).
- 11 The French word for justice, *droit*, means both law and right.
- 12 Edward Said, *Culture and Imperialism* (New York: Vintage, 1993), p. 7.
- 13 Bill McKibben, *The End of Nature* (New York: Random House, 2006), p. 41.
- 14 Félix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton (London: Athlone Press, 2000).
- 15 Forensic Architecture et al., eds., *Forensis: The Architecture of Public Truth* (Berlin: Sternberg Press, 2014).
- 16 See, for example, Moore's history of capitalism and its relation to nature, *Capitalism in the Web of Life*.

17 In his classic work *Uneven Development: Nature, Capital, and the Production of Space*, Neil Smith places uneven development as a contradiction that nevertheless drives capitalism, its logic derived from how “Capital is continually invested in the built environment in order to produce surplus value” on the one hand, and on the other, how “capital is continually withdrawn from the built environment so that it can move elsewhere and take advantage of higher profit rates.” See Smith, *Uneven Development: Nature, Capital, and the Production of Power* (Cambridge, MA: Basil Blackwell, 1990), p. 6.

18 See Sugata Bose, *A Hundred Horizons: The Indian Ocean in the Age of Global Empire* (Cambridge, MA: Harvard University Press, 2009); Rohan D’Souza, “Water in British India: The Making of a ‘Colonial Hydrology,’” *History Compass* 4, no. 4 (July 2006), pp. 621–28; Gadgil and Guha, *This Fissured Land*; and Iftekhar Iqbal, *The Bengal Delta: Ecology, State and Social Change 1840–1943* (Basingstoke, UK: Palgrave Macmillan, 2010).

19 Mike Davis, *Late Victorian Holocausts: El Niño Famines and the Making of the Third World* (London: Verso, 2000), p. 9.

20 El Niño, aka the El Niño Southern Oscillation (ENSO) phenomenon, causes periodic shifts in tropical weather systems on a planetary scale, consisting of air mass circulation and changing ocean temperature.

21 Eduardo Viveiros de Castro, “Images of Nature and Society in Amazonian Ethnology,” *Annual Review of Anthropology* 25 (October 1996), pp. 179–200.

22 Davis, *Late Victorian Holocausts*, p. 330.

23 *Ibid.*

24 See, respectively, Amartya Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford: Clarendon Press, 1982) and Alex de Waal, *Famine Crimes: Politics and the Disaster Relief Industry in Africa* (Oxford: James Currey, 1997).

25 See, for example, Michael Watts’s classic work on the food crisis in the Sahel in the 1970s, *Silent Violence: Food, Famine, and Peasantry in Northern Nigeria* (Berkeley: University of California Press, 1983).

26 Tim Forsyth, “Political Ecology and the Epistemology of Social Justice,” *Geoforum* 39, no. 2 (March 2008), pp. 756–64.

27 Guattari, *The Three Ecologies*, p. 52.

28 It’s telling that Guattari, writing *The Three Ecologies* in 1989, singles out none other than Donald Trump, then only a real-estate developer, and compares him to monstrous algae that (who) redevelop metropolitan districts of New York and Atlantic City, driving up rent and driving out poor families “condemned to homelessness and becoming the equivalent of the dead fish of environmental ecology” (p. 43). Guattari’s ethico-aesthetic narrative of Trump, the mutant alga, predicts how in 2016 Trump has successfully saturated television screens in the United States toward a presidential bid.

29 Félix Guattari, *Chaosmosis: An Ethico-Aesthetic Paradigm*, trans. Paul Bains and Julian Pefanis (Bloomington: Indiana University Press, 1995), p. 7.

30 Gabriel de Tarde, *Underground Man*, trans. Cloudesley Brereton (London: Duckworth & Co., 1905), pp. 168–69.

31 Guattari, *Chaosmosis*, p. 20.

32 Nigel Clark, *Inhuman Nature: Sociable Life on a Dynamic Planet* (London: SAGE, 2011), p. 6.

33 Michel Serres, *Biogea*, trans. Randolph Burks (Minneapolis: Univocal Publishing, 2012), p. 29.

34 Ibid.

35 Clark, *Inhuman Nature*, p. 219.

36 There is a renewed interest in materialisms in philosophy, geography, and anthropology, from science and technology studies to contemporary art. Jane Bennett, for example, has called for the recognition of a vibrant materiality of things whereby they are imbued with a “vitality” to “act as quasi agents or forces with trajectories, propensities, or tendencies of their own.” See Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010), p. viii. The anthropologist Martin Holbraad has noted that the emancipation of things has resonance with postcolonial theories; the title of his essay “Can the Thing Speak?” makes reference to Gayatri Chakravorty Spivak’s influential essay on the politics of silence, the ideological barriers faced by those who are excluded from political representation, in a capitalist system that moves through exclusion. See Holbraad, “Can the Thing Speak?,” *Working Papers 7* (OAC Press, 2011). Online: www.openanthcoop.net/press/2011/01/12/can-the-thing-speak.

37 Such as the 1970 Bhola cyclone, which catalyzed the national liberation of Bangladesh the following year. See my essay, “The Toxic House,” in *Forensis*, pp. 614–33.

38 Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley, Mark Seem, and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983), p. 139.

39 Maria Paula Meneses, João Arriscado Nunes, and Boaventura de Sousa Santos, “Introduction: Opening Up the Canon of Knowledge and Recognition of Difference,” in *Another Knowledge Is Possible: Beyond Northern Epistemologies*, ed. Sousa Santos (London: Verso, 2007), p. xxviii.

40 Sanjay Kabir Bavikatte, *Stewarding the Earth: Rethinking Property and the Emergence of Biocultural Rights* (Oxford: Oxford University Press, 2014).

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